



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|--------------------|
| 09/930,593 | 08/15/2001 | Charles Boone | 23572-501 | 1658 |
| 30623 | 7590 | 05/27/2005 | EXAMINER | |
| MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C. ONE FINANCIAL CENTER BOSTON, MA 02111 | | | | SULLIVAN, DANIEL M |
| ART UNIT | | PAPER NUMBER | | |
| | | 1636 | | |

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

09/930,593

Applicant(s)

BOONE, CHARLES

Examiner

Daniel M. Sullivan

Art Unit

1636

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 May 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) The period for reply expires 4 months from the mailing date of the final rejection.
- b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because

- (a) They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) They raise the issue of new matter (see NOTE below);
- (c) They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See continuation of 3. (See 37 CFR 1.116 and 41.33(a)).

- 4. The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
- 5. Applicant's reply has overcome the following rejection(s): _____.
- 6. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
- 7. For purposes of appeal, the proposed amendment(s): a) will not be entered, or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1,6-10 and 79-83.

Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

- 8. The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
- 9. The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
- 10. The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

- 11. The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
- 12. Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____.
- 13. Other: _____.


DAVID GUZO
PRIMARY EXAMINER

Continuation of 3: Applicant has amended claim 1 such that it is now directed to a high density output array, wherein the array is limited to comprising at least two deletion mutations which are different in each yeast strain, wherein the output array results from the mating of at least a test strain and an input array, wherein the input array comprises starting yeast strains carrying a deletion mutation linked to a dominant drug resistance marker, wherein each starting yeast strain carries at least one deletion mutation, with the deletion mutation being different in each starting yeast strain, wherein the test strain comprises a mutation in a yeast gene selected from the group consisting of bni1, arc40, bim1, sgs1, bbc1, arp2, nbp2, and rad27 and the input array comprises one or more of 4,644 non-lethal gene mutations in *Saccharomyces cerevisiae*.

In the remarks that accompany the amendment, Applicant contends that claim 1 "specifies] that at least one of input arrays comprises mutations in the yeast bni1, arc40, bim1, sgs1, bbc1, arp2, nbp2, or rad27 genes and at least one of the input arrays comprises one or more of the 4,644 non-lethal gene mutations in *Saccharomyces cerevisiae* as described ion page 32, lines 5-6 and 28-29 of the instant specification" and urges that the Examiner has acknowledged in the June 18, 2003 Office Action on page 4-5, written description has been satisfied for such output arrays.

It is first noted that Applicant's construction of the claims is overly narrow. While the input array is limited to comprising a deletion mutation linked to a dominant drug resistance marker and one or more of 4,644 non-lethal gene mutations in *Saccharomyces cerevisiae*, the deletion mutation linked to a dominant drug resistance marker need not be the same as the non-lethal gene mutation. Thus, the amended claims now encompass an output array constructed from an input array comprising a deletion mutation linked dominant drug resistance marker and additionally comprising one or more of 4,644 non-lethal gene mutations, wherein the non-lethal gene mutations might be any mutation including, for example, insertion of a foreign gene or upregulation of an endogenous protein. As the previously examined output array and the array of the amended clams are of considerably different and non-overlapping scope, entry of the proposed amendment would require additional search and consideration.

In addition, the claims now recite that the output array is the product of a mating with a test strain comprising a mutation in a specific yeast gene. Although the passage from the Office Action cited by Applicant acknowledges that the characteristics of certain output arrays resulting from a mating of *S. cerevisiae* comprising a mutation in a gene selected from bni1, arc40, bim1, sgs1, bbc1, arp2, nbp2, or rad27 are disclosed in the application, the Examiner cannot find a precise description of how the specific yeast gene was mutated in the working example (i.e., deleted, overexpressed, modified, etc.). Thus, it is not clear how the properties of the test strain and input array recited in the claims correlate with the properties of the output array described in Table 1. Therefore, the amendment raises new issues that would require additional consideration.